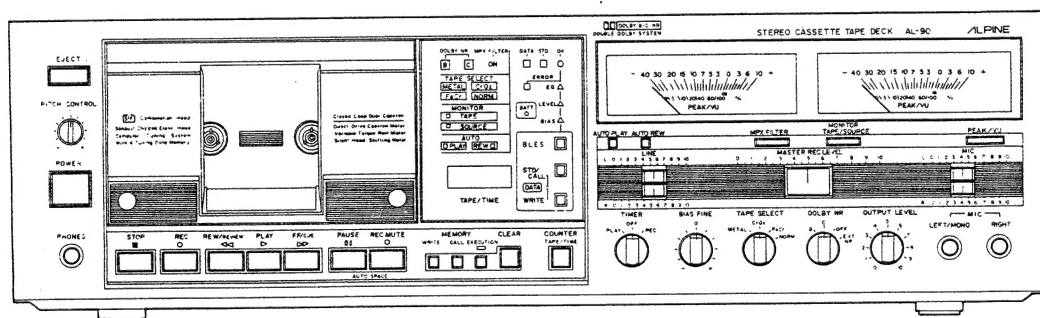


# ILLUSTRATION MANUAL

**STEREO CASSETTE TAPE DECK**

**AL90**



**ALPINE**

● Please use this ILLUSTRATION MANUAL together with the supplied INSTRUCTION MANUAL.

- FRONT PANEL • FACE AVANT • VORDERANSICHT
- VEDUTA FRONTALE • VISTA DELANTERA

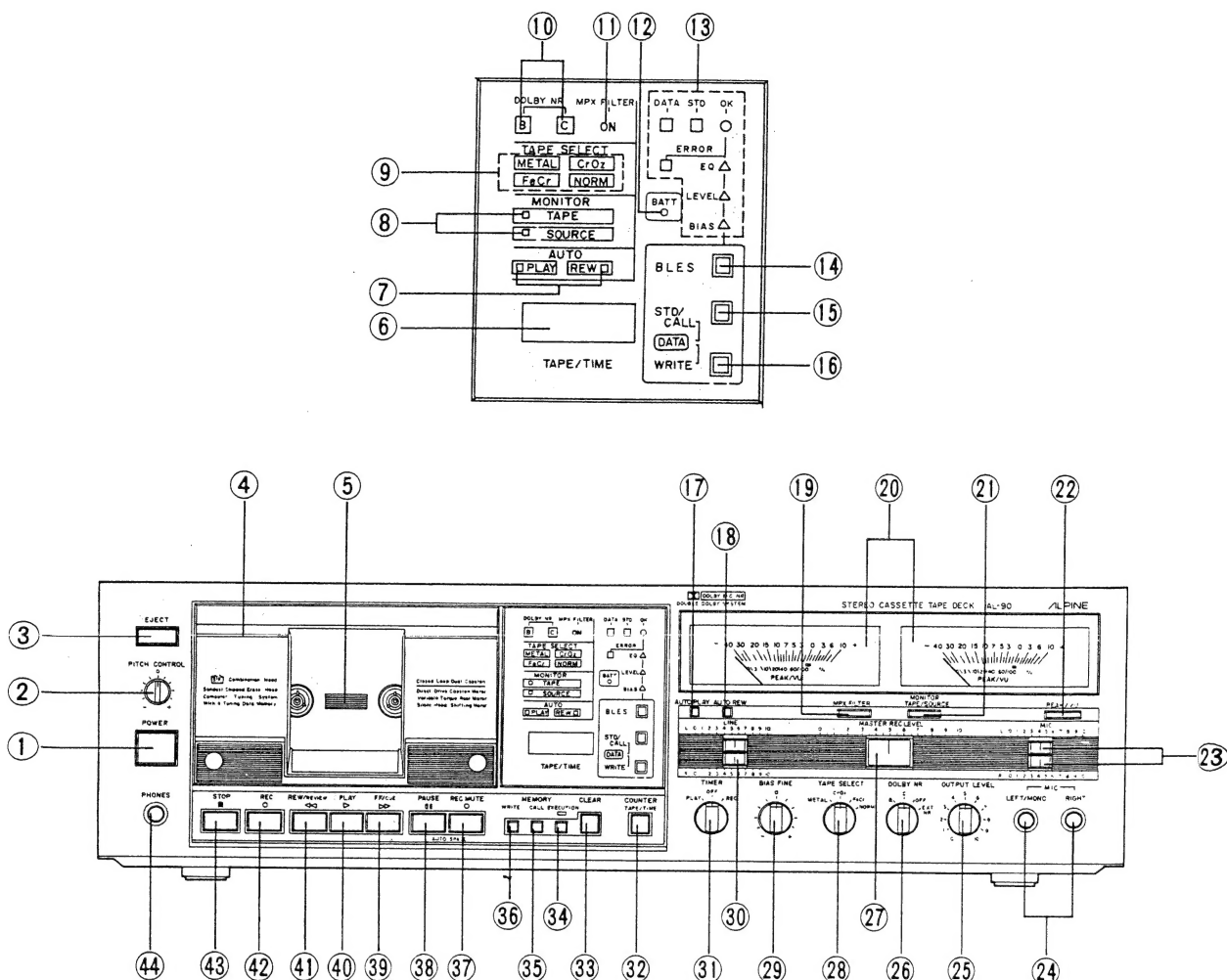


Fig. 1/Abb. 1

- REAR PANEL • FACE ARRIERE • RÜCKANSICHT
- VEDUTA POSTERIORE • VISTA TRASERA

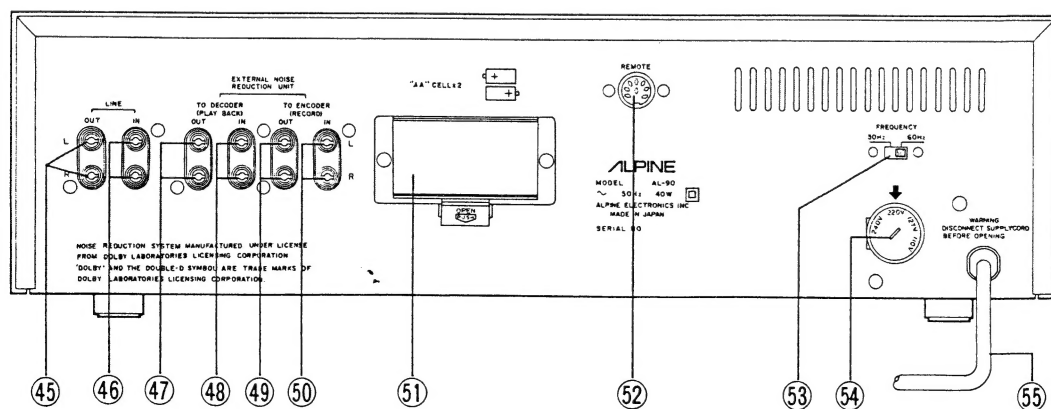


Fig. 2/Abb.2

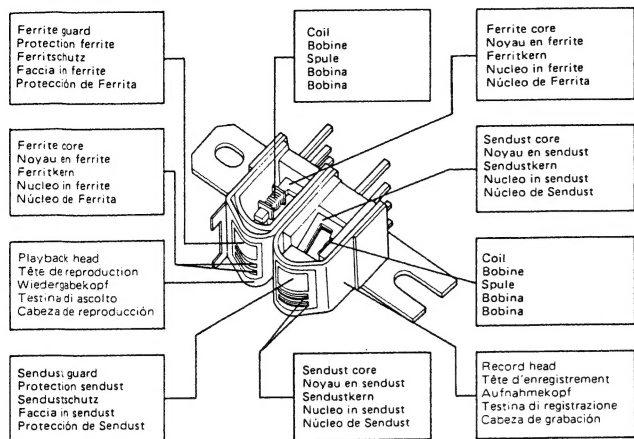


Fig. 3/Abb. 3

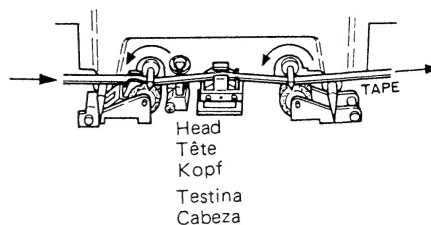


Fig. 4/Abb. 4

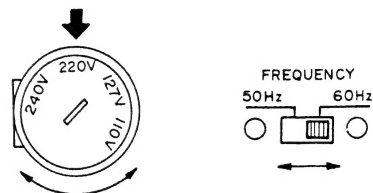


Fig. 5/Abb. 5

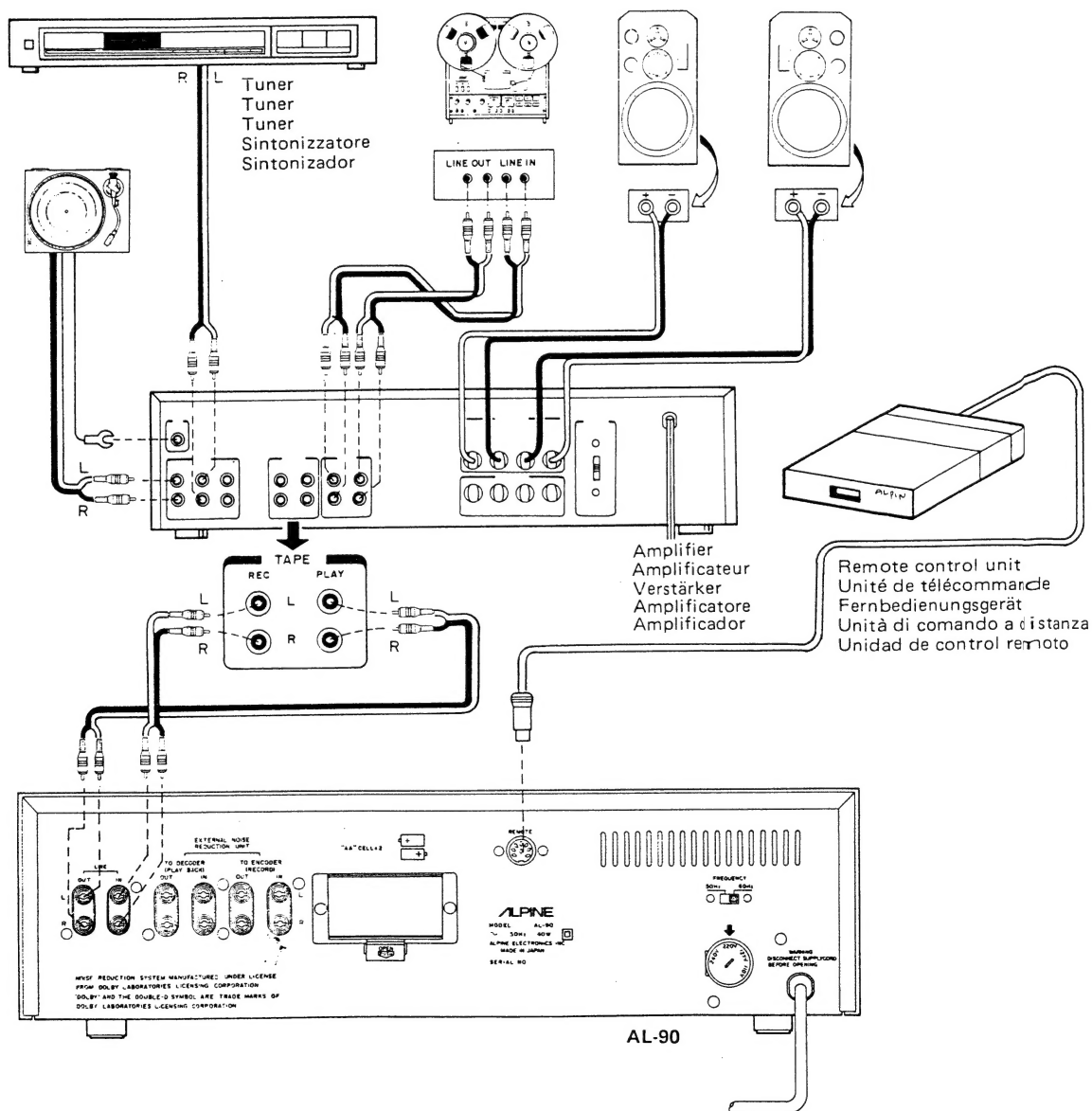
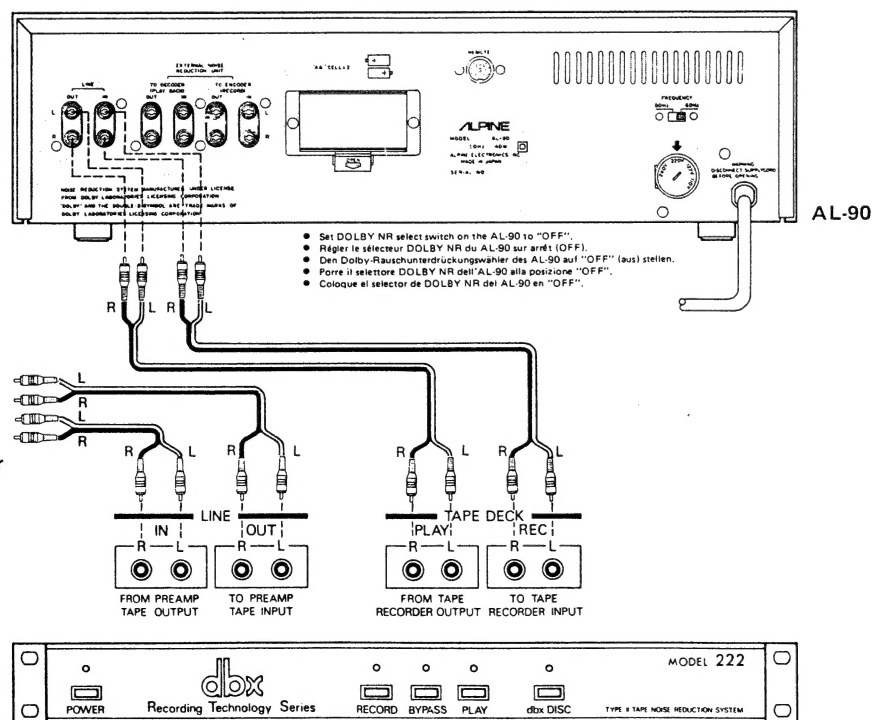
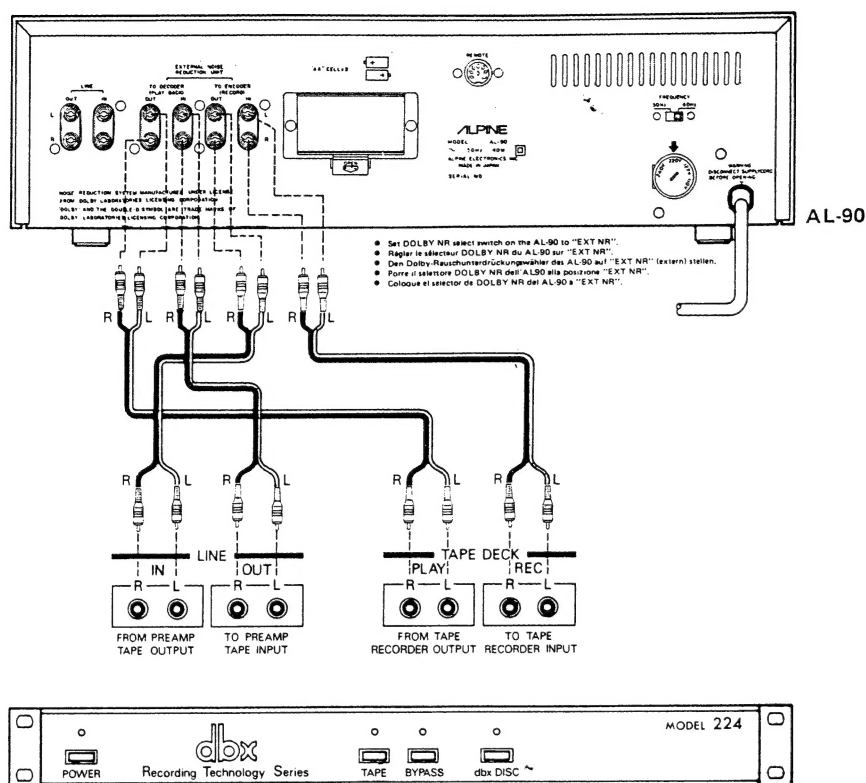


Fig. 6/Abb. 6



- To Amplifier
- Vers l'amplificateur
- Zum Verstärker
- All'amplificatore
- Hacia el amplificador

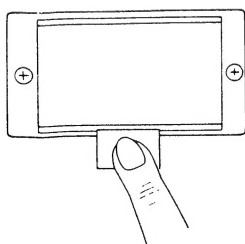
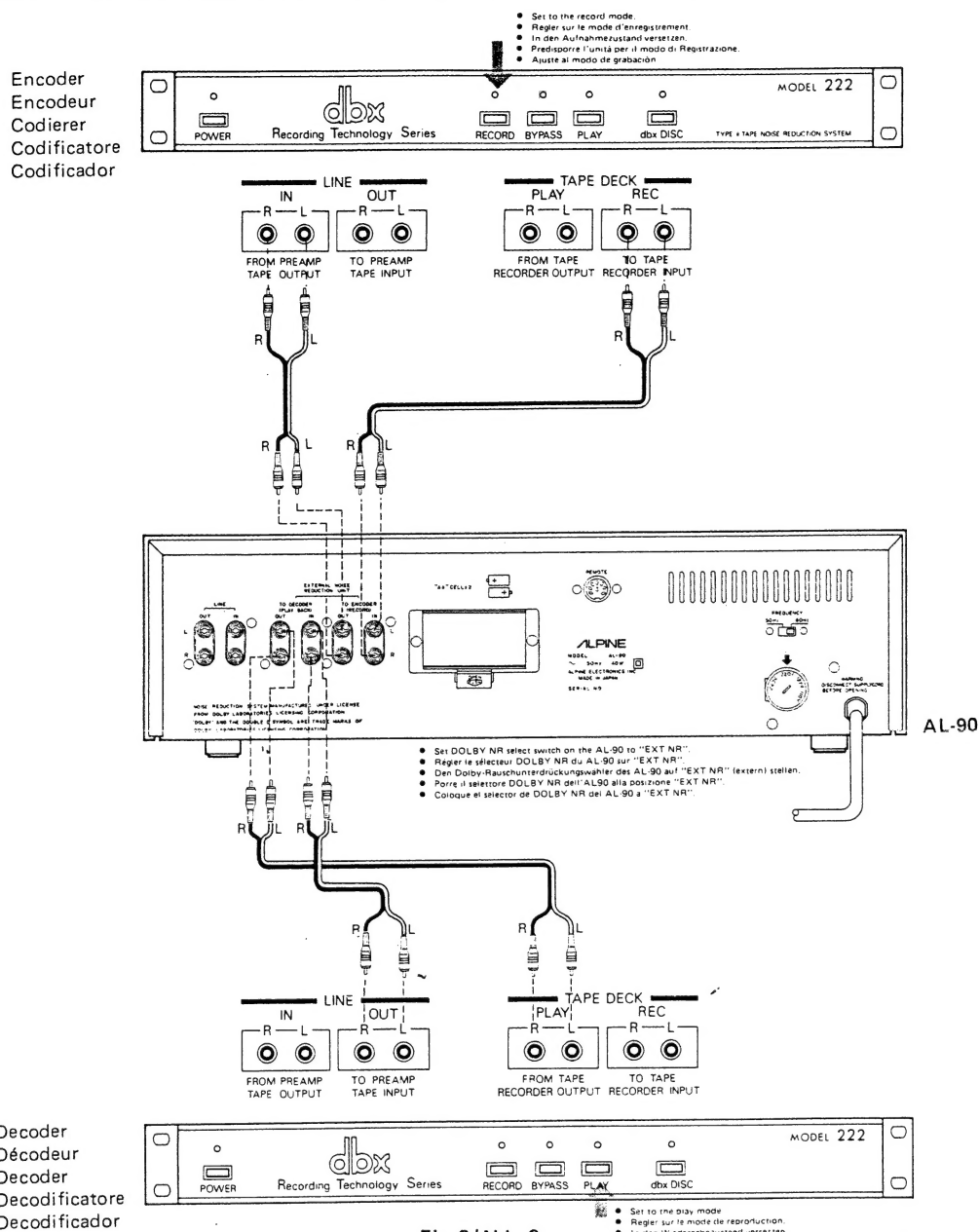


Fig. 10/Abb. 10

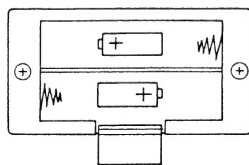


Fig. 11/Abb. 11

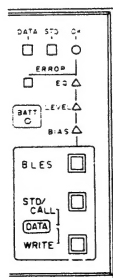


Fig. 12/Abb. 12



Fig. 13/Abb. 13

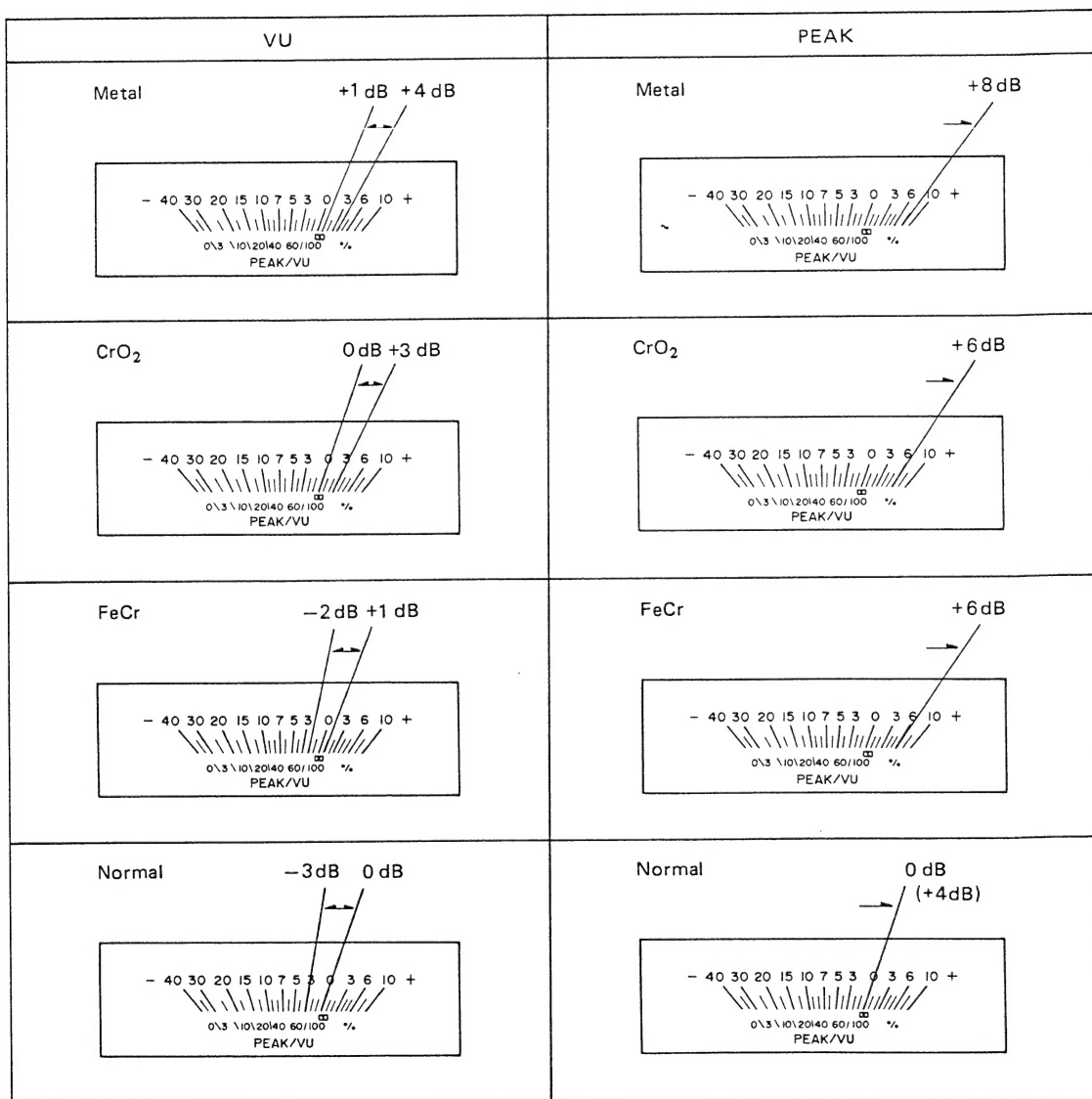
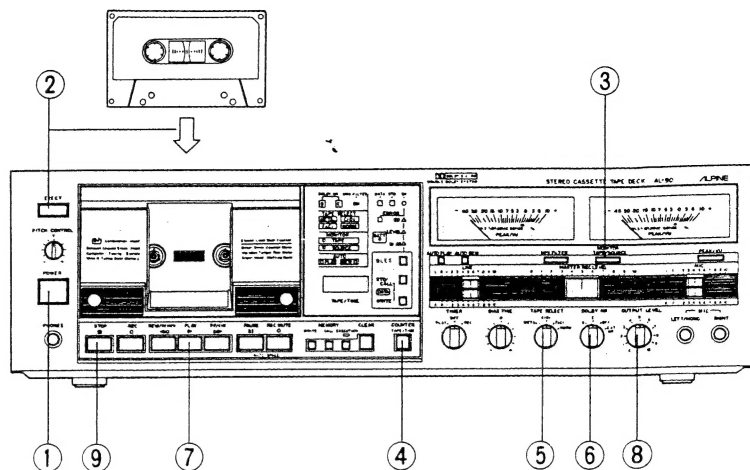
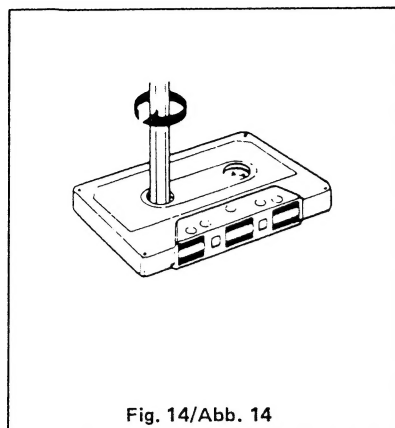


Fig. 16/Abb. 16

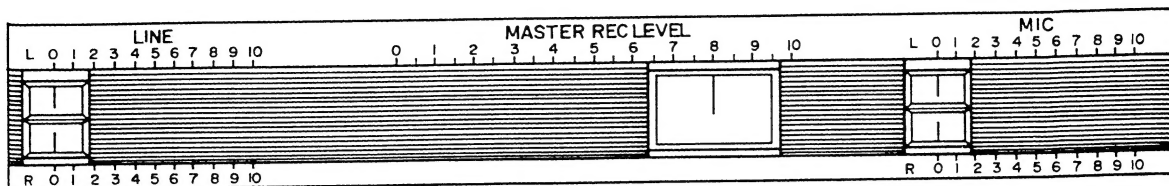


Fig. 17/Abb. 17

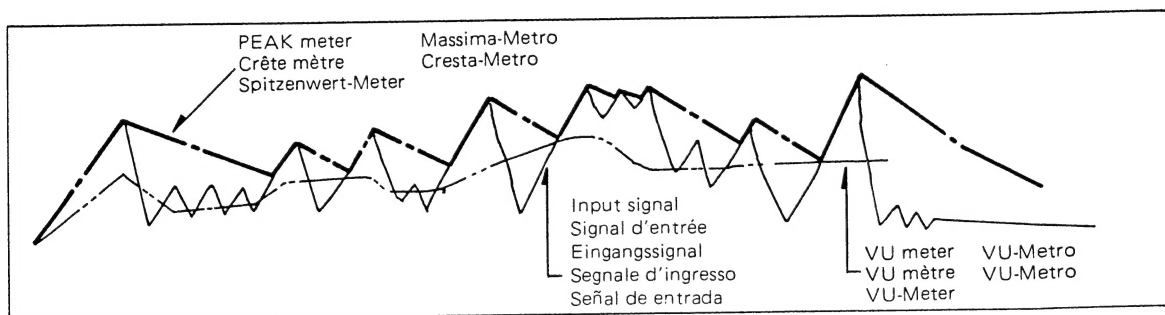


Fig. 18/Abb. 18

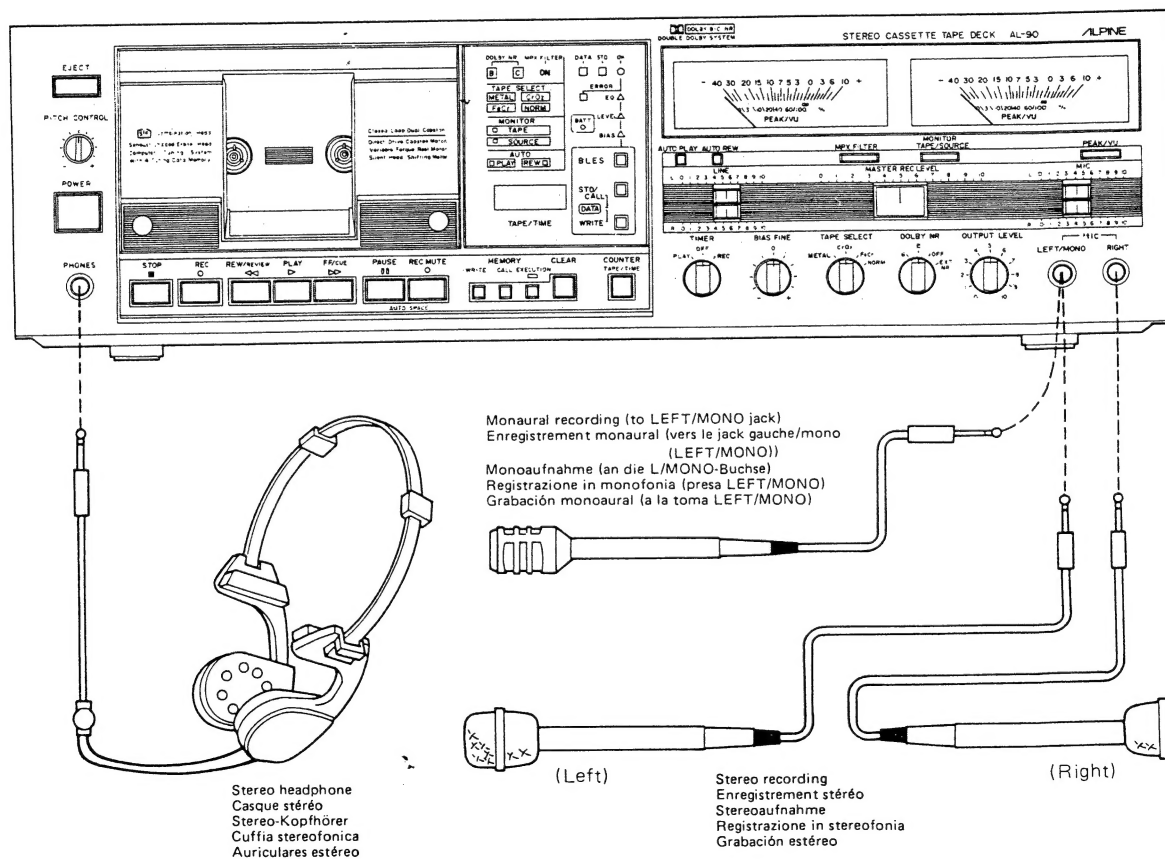


Fig. 19/Abb.19

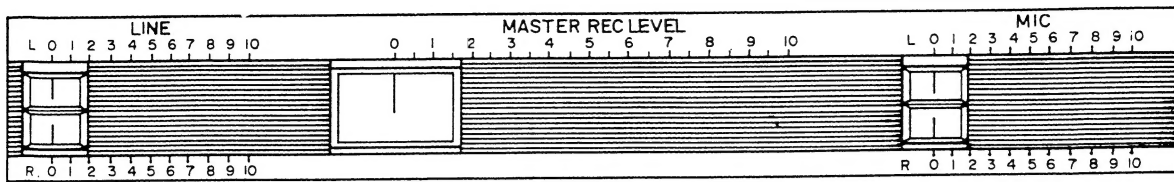


Fig. 20/Abb. 20

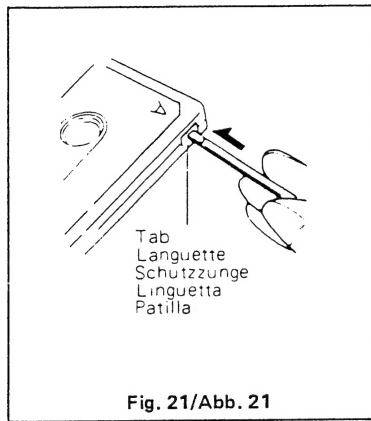


Fig. 21/Abb. 21



Fig. 22/Abb. 22

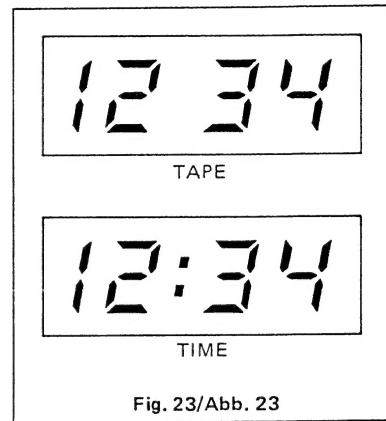


Fig. 23/Abb. 23

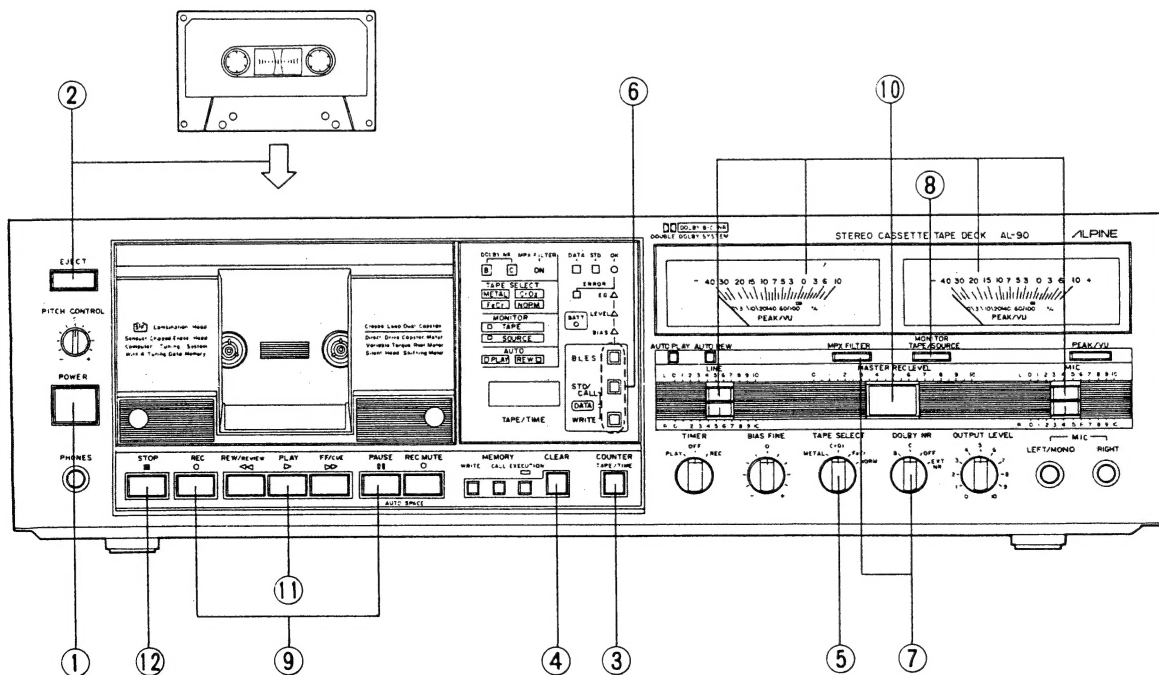


Fig. 24/Abb. 24



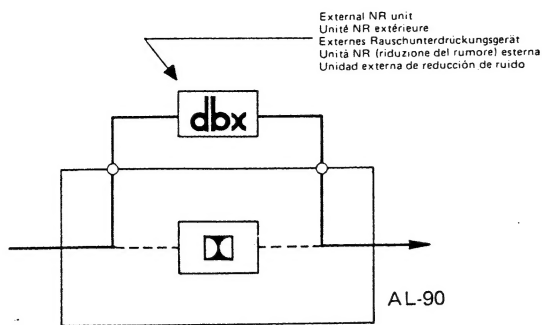


Fig. 25/Abb. 25

Tape Motion						NOTE
STOP	REC	REW	PLAY	PAUSE	REC MUTE	
①	①			②		(A)
①	①		②	③		(B)
						(C)

Fig. 26/Abb. 26

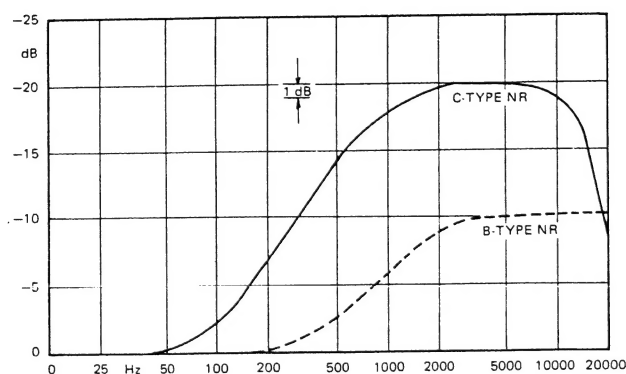
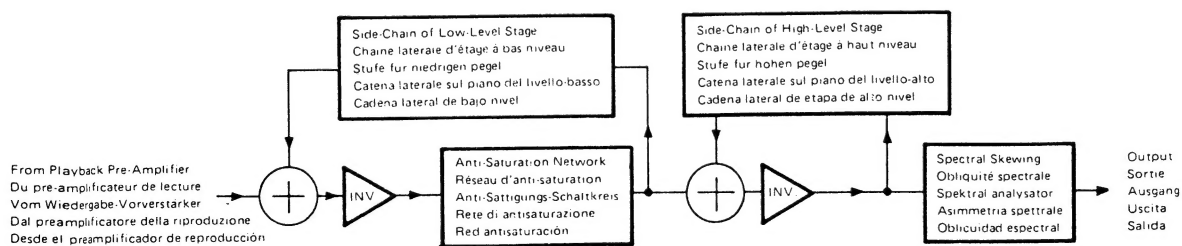
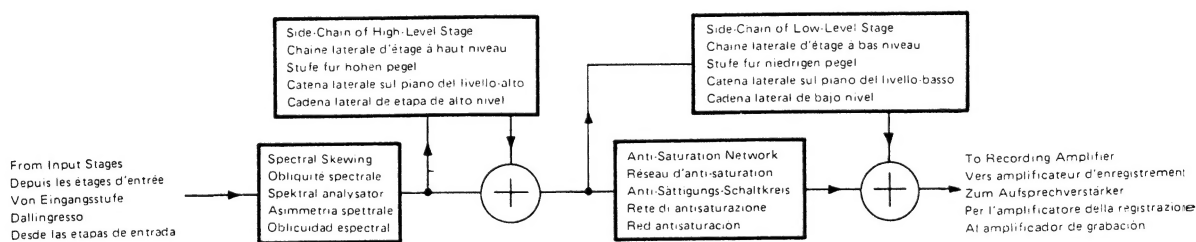


Fig. 27/Abb. 27

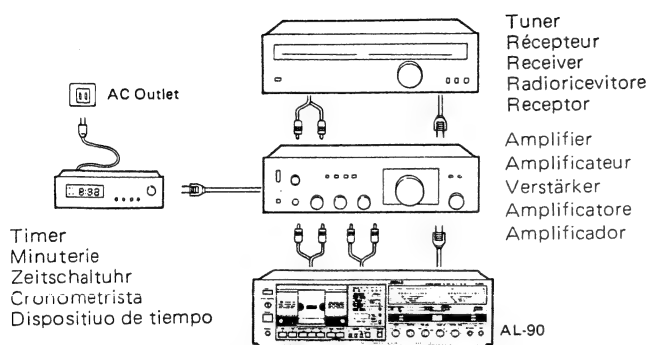
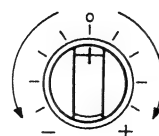
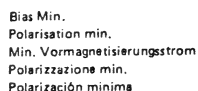
Low-level encoding frequency Response  
Réponse de fréquence d'encodage à bas niveau  
Frequenzgang bei niedrigem Aufnahmepiegel  
Risposta in frequenza "encoding" sul livello-basso  
Respuesta de frecuencia de encodificación de bajo nivel



Dolby C-type NR block diagram  
Schéma de principe du système NR Dolby type C  
Blockschaltbild des Dolby-C-Schaltkreises  
Schema a blocchi del Dolby NR  
Diagrama de conjunto del sistema de reducción de ruido Dolby del tipo C

Fig. 28/Abb. 28





STOP					REC		REVIEW		PLAY		PAUSE		REC. MUTE	
W	D	D	D	D	D	D	D	D	D	D	D	D	D	D
②			①											
③			②	①										
			②	①										
			③	③										
			③	①			②							
			①	①										

STOP REC REVIEW PLAY PAUSE REC. MUTE

W D D D D D D D D D D D D D

Tape Motion

	REW → STOP
	PLAY → REW → STOP
	PLAY → REW → PLAY
	PLAY → PAUSE → REVIEW → PLAY
	REVIEW → PLAY

STOP	REW	PAUSE	PLAY	EJECT	F.FWD	REVERSE	PAUSE
②				①			
③			①	②			
			①	②			
			③				
			①	③	②		
			①	①			

Tape Motion

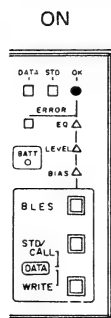
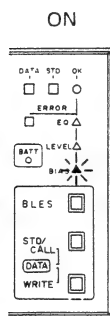
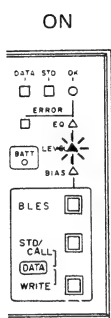
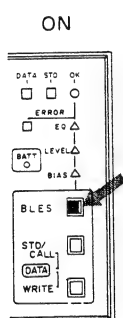
FF → STOP

PLAY → FF → STOP

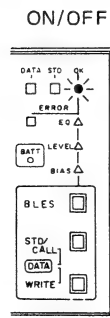
PLAY → FF → PLAY

PLAY → PAUSE → CUE → PLAY

CUE → PLAY



Nearly "OK"



"ERROR"

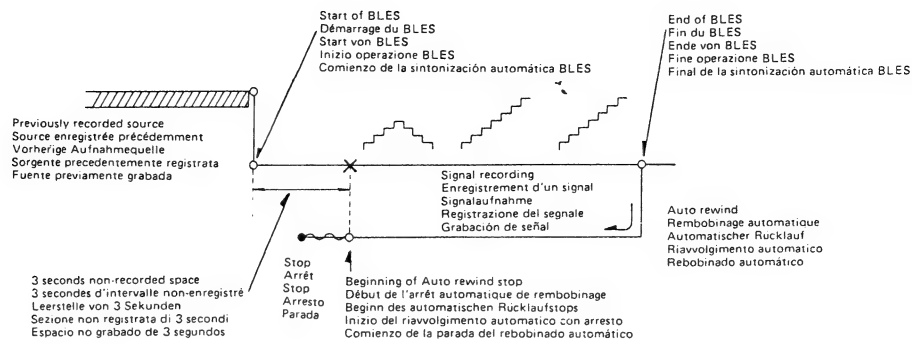


Fig. 39/Abb. 39

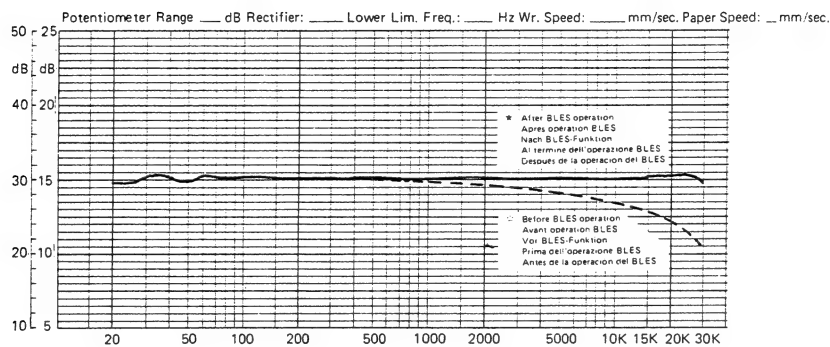


Fig. 40/Abb. 40

BLES Frequency Response (Normal Tape)  
Réponse en fréquence BLES (bande normale)  
BLES-Frequenzgang (Normalband)  
Risposta in frequenza BLES (nastro normale)  
Respuesta de frecuencia del BLES (cinta normal)

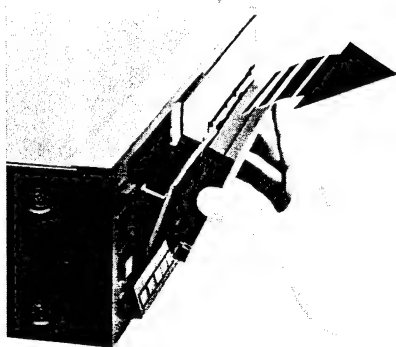


Fig. 41/Abb. 41

Pinch Roller and Capstan Shaft  
Galet Presseur et axe de cabestan  
Andruckrolle und Tonwelle  
Rullino compressore e albero del rullo di trazione  
Rodillo sujetador y eje de cabestrante

Tape Pad Lifter  
Dispositif de levage du patin de bande  
Andruck-kissen-Heber  
Linguetta sollevatrice del nastro  
Almohadilla elevadora de la cinta



Erase Head  
Tête d'effacement  
Löschkopf  
Testina di cancellamento  
Cabeza de borrado

Record/Playback Head  
Tête d'enregistrement/Reproduction  
Aufnahme/Wiedergabekopf  
Testina di registrazione/ascolto  
Cabeza de grabación/reproducción

Fig. 42/Abb. 42

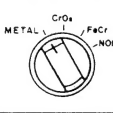
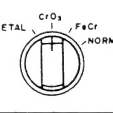
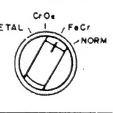
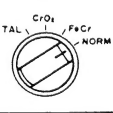
BRAND MARQUE FABRIKMARKE MARCA MARCA	MODEL MODELE MODELL MODELLO MODELO	TAPE SELECT SELECTEUR DE BANDE BANDSORTEN SELEZIONATORE DEI NASTRO SELECTOR DE CINTA			
TDK	MA, MA-R SA, SA-X OD, AD, ED, D, AD-X	METAL CrO <sub>2</sub> NORM			
MAXELL	MX, MAXELL XL II, XL II-S XLI, UD, UL, LN, XLI-S	METAL CrO <sub>2</sub> NORM			
SCOTCH	METAFINE MASTER II, MASTER 70 $\mu$ s, Chrome MASTER III, CLASSIC MASTER I, MASTER 120 $\mu$ s, CRYSTAL, TARTAN DYNARANGE, HIGH LANDER, HIGH ENERGY	METAL CrO <sub>2</sub> FeCr NORM NORM			
SONY	METALLIC EHF, JHF, CR, Chrome, UCX-S DUAD, Ferri Chrome, Fe-Cr AHF, BHF, CHF, SHF, HFX, HF, LNX, C	METAL CrO <sub>2</sub> FeCr NORM			
BASF	METAL IV Professional Professional II, Studio II, Chromdioxid, Chromdioxid Super, SCR Professional III, FCR, Ferro Chrom Studio I, Professional I, Performance, LH (I), SLH (I), LN	METAL CrO <sub>2</sub> CrO <sub>2</sub> FeCr NORM NORM			
AMPEX	GRAND MASTER II, 20 : 20 + High BIAS GRAND MASTER (I), 20 : 20 +, PLUS, LO-NOISE	CrO <sub>2</sub> NORM			
AUDIO MAGNETICS	HIGH PERFORMANCE II XHE, HIGH PERFORMANCE, TRACS, SUPER	CrO <sub>2</sub> NORM			
Agfa	Stereo Chrom Super Chrom, Carat Ferro Color, Super Ferro Dynamic (I)	CrO <sub>2</sub> FeCr NORM			
MEMOREX	High Bias MRX <sub>3</sub>	CrO <sub>2</sub> NORM			
PHILIPS	CHROMIUM FERRO-CHROMIUM SUPER FERRO, FERRO	CrO <sub>2</sub> FeCr NORM			
FUJI	METAL, SUPER RANGE-SR UR, FX-II, Range 4X, FR-II FL, DR, ER, FX-I, RANGE (2) (4) (6), FR-I	METAL CrO <sub>2</sub> NORM			
DENON	DXM DX-7 DX-5 DX-3, DX-1	METAL CrO <sub>2</sub> FeCr NORM			
Recorded music tape available in the market (unless otherwise specified). Bande musicale enregistrée disponible sur le marché (à moins qu'il ne soit autrement spécifié). Aufgenommene Musikkassetten, die auf dem Markt verkauft werden, es die denn, dass etwas anderes vorgeschrieben ist. Un nastro registrato delle musiche si può ottenere sul mercato (se non è stato specificato). Cinta musical grabada disponible en el mercado (de no especificarse de otra manera).					NORM
120 $\mu$ s EQ, NORMAL BIAS					NORM
Position of Tape select switch. Positions du bouton selecteur de bande. Bandsortenvähler Tonbänder. Le posizioni della manopola selettore del nastro. Posición de la perilla de selección de cinta.		METAL	CrO <sub>2</sub>	FeCr	NORM
					
<ul style="list-style-type: none"> <li>Set the tape select switch according to the kind of the tape so that the general performance of recording and playback can function to the full. Although the equalizer constant in playback is 70 <math>\mu</math>s for both the METAL, FeCr and CrO<sub>2</sub> tapes, the recording characteristics between those three tapes are slightly different, the recording equalizer characteristics are also different between them.</li> <li>Régler le bouton sélecteur de bande en fonction du type de bande utilisée de façon à obtenir les performances optimales à l'enregistrement et à la lecture. Bien que la constante d'égaliseur à la lecture soit de 70 <math>\mu</math>s pour les bandes METAL, FeCr et CrO<sub>2</sub>, les caractéristiques d'enregistrement ainsi que celles d'égaliseur d'enregistrement sont quelque peu différentes entre ces trois bandes.</li> <li>Den Bandsortenvähler gemäß der verwendeten Tonbandsorte einstellen, um richtige Entzerrung und Vermagnetisierung bei Aufnahme und Wiedergabe zu erhalten. Die Wiedergabe-Entzerrung beträgt sowohl bei Reineisen-als auch bei METALL, FeCr und CrO<sub>2</sub>-Band 70 <math>\mu</math>s, wogegen aber die Aufnahme-Entzerrung und die Vormagnetisierung unterschiedliche Werte für diese beiden Tonbandsorten aufweisen.</li> <li>Selezionare la manopola selettore del nastro al nastro della cassetta di uso in modo che la prestazione generale di registrazione e di riproduzione sarà ottima. Seppure l'equalizzatore costante, quando la riproduzione è 70 <math>\mu</math>s, per i nastri METAL, FeCr e CrO<sub>2</sub>, le caratteristiche sulla registrazione sono un po' diversi fra di loro. Anche le caratteristiche di equalizzatore sono diversi per la registrazioni fra di loro.</li> <li>Regule la perilla del selector de cinta según el tipo de cinta para obtener excelente rendimiento en la grabación y reproducción. Aunque la constante del igualador en la reproducción es 70 <math>\mu</math>s para las cintas de METAL, FeCr y CrO<sub>2</sub>, son ligeramente diferentes las características de grabación entre dichas tres cintas. Y las características del igualador de grabación son también diferentes.</li> </ul>					

Table 1/Tableau 1/Tabelle 1/Tavola 1/Tabla 1

Memory Switch Operation

Switches/Commutateurs/Tasten Commutatori/Interruptores						Tape Motion/Mouvement de band/Bandlauffunktion Scorrimiento del mastro/Movimiento de la cinta			
REW (◀◀)	PLAY (▶)	FF (▶▶)	EXEC- TION	AUTO		BEGIN	"0000"	"0200"	END
				PLAY	REW				
		ON							
		ON		ON				FF	
		ON			ON				
		ON		ON	ON				
ON								REW	
ON					ON				
	ON								
	ON		ON					PLAY	
	ON		ON	ON					
	ON			ON					
		ON	ON				FF	FF	FF
		ON	ON		ON				
ON			ON				REW	REW	REW
ON			ON		ON				
	ON				ON			PLAY	
								REW	
	ON			ON	ON			PLAY	
								REW	
ON				ON				PLAY	
								REW	
ON				ON	ON			PLAY	
								REW	

Table 2/Tableau 2/Tabelle 2/Tabela 2/Tabla 2

Switches/Commutateurs/Tasten Commutatori/Interruptores						Tape Motion/Mouvement de bande/Bandlauffunktion Scorrimento del nastro/Movimiento de la cinta			
REW (◀◀)	PLAY (▶)	FF (▶▶)	EXEC- UTEON	AUTO		BEGIN	"0000"	"0200"	END
				PLAY	REW				
	ON		ON		ON				
		ON	ON	ON					
			ON	ON	ON				
ON			ON	ON					
ON			ON	ON	ON				
	ON		ON	ON	ON				

**FF:** Avancement rapide/Schnellvorlauf/Avanti Veloce/Avance Rapido  
**Play:** Lecture/Wiedergabe/Riproduzione/Reproducción  
**Rew:** Rembobinage/Rückauf/Indietro/Reenrollado  
**Excution:** Exécution/Ausführung/Execution/Ejecución  
**Auto Play:** Lecture automatique/Auto start/Automatica Riproduzione/Reproducción automática  
**Auto Rew:** Rembobinage automatique/Auto Rücklauf/Automatico Indietro/Reenrollado automática  
**Begin:** Début/Beginn/Inizio/Comienzo  
**End:** Fin/Ende/Fine/Fin

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**ALPINE ELECTRONICS INC.**

Tokyo Office: 1-7 Yukigaya Otsuka-cho  
Ota-ku Tokyo, Japan  
Phone 03-727-5311 Telex 246-6076

Iwaki Office: Oyasaku Yoshima-cho  
Iwaki-shi Fukushima, Japan  
Phone 0246-36-4111 Telex 8927-61

**ALPINE ELECTRONICS GmbH**

Münsterstr. 330 D-4000 Düsseldorf  
F.R. Germany  
Tel. 0211-626806 Telex 8588 296 ALPI D

**ALPINE ELECTRONICS OF CANADA INC.**

101 Amber Street units 18-21 Markham,  
Ontario L3R 3B2  
Canada Phone 416-475-7280 Telex 06986789

**ALPINE ELECTRONICS OF AMERICA INC.  
LATIN AMERICAN DIVISION**

3102 Kashiwa Street, Torrance  
California 90505  
Phone 213-326-8000 Telex 230-181890